The Role of the Psychiatrist in Cardiovascular Disorders

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THERE is no doubt that physiological changes accompanying emotion may disturb the function of an organ, nor that, through the mediation of the autonomic and endocrine systems, changes in the tension of smooth and striated muscle, in secretion, circulation and respiration may occur. The inevitable conclusion is that there is no logical distinction between mind and body; that we cannot separate the functional from the organic; that it is no longer a question of whether a disease process is either psychologically or organically conditioned, but rather how much is it of one and how much of another.

Remarking on this tendency to an "either/or" concept, Crookshank[4] wrote, "It always seems to me odd in the extreme that doctors who, when students, suffered from frequency of micturition before an examination, or who, when in France, had actual experience of the bowel looseness that occurred before action, should persistently refuse to seek a psychical correlative—not to say an etiological factor —when confronted with a case of functional enuresis or mucous colitis. I often wonder that some hard boiled and orthodox clinician does not describe emotional weeping as a 'new disease,' calling it paroxysmal lachrymation, and suggesting treatment by belladonna, astringent local applications, avoidance of sexual excess, tobacco and alcohol, and a salt free diet with restriction of fluid intake; proceeding, in the event of failure to early removal of the 'tear glands'."

Psychological and somatic phenomena occur in the same biological organism, but we can study and understand the former only by psychological methods and the latter through physics and chemistry. In the presence of a constant or periodically recurring emotional state there are certain physiological concomitants, and it is postulated that chronic disturbances in function tend to be crystallized into structural somatic, perhaps even irreversible, changes.

Certainly most of the patients we see with complaints referable to the heart do not suffer from organic heart disease, and this is not difficult to understand when we realize that anxiety, with its somatic expressions in the cardiovascular system, is a universal phenomenon. Complaints of heart consciousness with or without cardiac arrhythmias, precordial pain, fear of death from a heart attack, respiratory consciousness, and fainting attacks are common symptoms presented to us by patients.

The problems which present themselves to the cardiologist and in which psychological factors may be of particular importance are:

1. The delirious reactions occurring in those patients who show evidence of decompensation.
2. The effect of anxiety on the diseased heart.
3. The problem of neurocirculatory asthenia and its relationship to psychological conflicts.
4. The importance of psychological factors in those patients suffering from cardiac arrhythmias, anginal symptoms and coronary disease.
5. The problem of the relationship of hypertension to emotional tensions.

A. *Cardiac Delirium:*

It is just as important to recognize the early signs and symptoms of a delirious reaction in a patient with heart disease as it is to recognize the early signs and symptoms of decompensation in the circulation; for as the delirium progresses and restlessness and disturbed behavior increase in intensity, this in itself is conducive to further breaks in compensation. One need not wait for the development of bizarre behavior, delusions and hallucinations, since clouding of consciousness and difficulty in mental grasp appear early in the development of such a reaction. Sustained effort and concentration become impaired, and the patient's speech rambling, diffuse and disconnected. Memory is impaired and affective disturbances of doubt, perplexity, anxiety, fear and suspicion may occur. With depression of cerebral metabolism there is a decreased control of emotions and instinctual drives. Urgings, strivings, fears and conflicts poorly repressed in daily life may all be expressed in the delirium. The form and content of this delirious reaction is not specific to the patient with heart disease any more than it is dependent on the nature of any other physical or chemical precipitating agent. It depends, rather, on the personality problems and integration of the individual.

The principal points to emphasize in the treatment of such a reaction are:

1. The avoidance of restraint, since restraint only leads to more struggling and resistiveness with consequent exhaustion.
2. If drugs must be used, morphine in amounts sufficient to allay anxiety and tension is the drug of choice rather than any of the barbiturates which are delirium-producing agents themselves in sensitive individuals.
3. Most delirious patients are frightened. Since they are apt to misinterpret stimuli, it is necessary to reduce these to a minimum; the room should be well lighted and a nurse by the bedside. Familiar faces and surroundings may do more to quiet such a disturbed patient than most sedation we can offer.

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Read at a meeting of the Heart Division of the San Francisco Tuberculosis Association, October 31, 1947, San Francisco.

B. *Effects of Emotional Tension on the Patient With Organic Heart Disease:*

In the patient with organic disease of the heart, it is sometimes very difficult to differentiate what symptoms are inherently a part of the disease process, what are secondary to the heart disease because of necessary restriction in activities, and what symptoms are being unconsciously utilized by the patient as a defense or in order to control the environment. Even if a patient has an organic disease of the cardiovascular system, and perhaps because of it, he may be suffering from psychological conflicts with resulting anxiety and tension which add further burdens to an already poorly functioning heart.[9]

The patient with organic heart disease is apt to exploit his disability; he may deny or minimize the serious character of his illness; he may adopt a martyr-like attitude and attempt to win the respect and admiration of his fellows by displaying how "he can take it," and in so doing neglect the advice of his medical advisers and find himself in repeated decompensation. Often an attack of illness will be precipitated by an intense emotional experience, but more often it is the result of compensatory efforts to attain approval by showing others how ably he can function.

Disturbances in breathing, palpitation and frankly hysterical manifestations may appear even when the heart is well compensated, and cannot be wholly explained by organic disturbance. They can better be understood in terms of frustration as the individual makes attempts to deal with his environment and fails.

The diagnosis of congenital, hypertensive or rheumatic heart disease does not necessarily imply a life of invalidism; and psychotherapeutic efforts must be directed at preventing such a chronic invalid reaction. Care must be taken that the physician does not fall into the trap laid by such a patient's unconscious need to suffer, so that becoming an invalid implies being nursed and cared for. On the other hand, the patient may react to his disability and reduction in activity with feelings of inferiority and inadequacy to which he responds by withdrawal or aggressive hostility; the smouldering repressed anger of withdrawal leading to as severe consequences as the overt anger of the aggressive reaction. Only if the physician recognizes these tendencies in his patient can he help to impart sufficient insight in him to recognize these trends and handle them accordingly. When a patient displays repeated bouts of decompensation while under an apparently adequate regime, the possibility that unconscious compulsive psychological needs have driven him to activities beyond his limitations must be recognized. If a good and strong relationship is built up with the patient, his need for the physician's approval may be sufficient to prevent him from overextending himself. Relief from all responsibility and marked limitation in activity are not always therapeutically wise if the patient's psychological, as well as his physiological, needs are considered.

C. *Neurocirculatory Asthenia:*

Individuals who cannot meet the stress and strain of life situations may develop symptoms related to the cardiovascular system. The normal heart can certainly meet the demands of extreme effort beyond the work required of an individual in his daily activities, but when the individual finds himself unable to perform his assigned duties because of severe symptoms apparently related to myocardial function, one must consider not only the physiological state of the cardiovascular apparatus, but the person himself, his attitudes, feelings, motivations, frustrations and fears.

Neurocirculatory asthenia is such a condition. DaCosta's first description of this syndrome[5] pictured it as the sequella of an exhaustive disease. During World War I it was regarded by many as a definitely "organic disease," and the name of "soldier's heart" was assigned it. Sir Thomas Lewis[7] thought it resembled the picture one sees when the individual is placed under conditions of great effort and the name of "effort syndrome" was assigned. As psychiatrists became interested, it was apparent to them that the resemblance between neurocirculatory asthenia and the anxiety state was remarkable, and they emphasized that the syndrome was a psychogenic one.

The dyspnea of neurocirculatory asthenia is matched by the choking sensations, increased sighing, and feeling that one is not going to be able to take another breath, that is displayed by the individual with repeated acute anxiety attacks. In both conditions the patients may have occipital headaches described as feelings of compression, feelings of tension, and "nervousness," heart consciousness in the form of palpitations, sensations of "butterflies" in the epigastric region, feelings of fear, anxiety and apprehension, marked feelings of fatigability and weakness, tremor and shakiness, precordial distress, feelings of compression about the chest like a "load on the chest," vertigo, fear of or actual fainting spells, anorexia with loss of weight and moods of depression. In only one symptom do the patients whose disease is diagnosed by the cardiologist as neurocirculatory asthenia differ from those whose distress stems from the anxiety states: The patients with neurocirculatory asthenia complain more often that almost any muscular effort will bring on an attack, and this is less often heard from the patients with anxiety states. Almost every one of these symptoms can be produced by hyperventilating the patient. In short, this is probably the same syndrome, although named "neurocirculatory asthenia" by the cardiologist and "anxiety state" by the psychiatrist.[10] There are no specific physical findings or laboratory studies which can help differentiate the two. When there are propounded such a variety of theories of causes as that the disorder is due to prolonged physical strain, infections, overactivity of the thyroid, hyperirritability of the autonomic nervous system, overindulgence in tobacco, hereditary taints, and "psychic instability," it might be better con-

sidered as a disturbance of a total personality in relation to his environment, since whenever the organism is subjected to physical or psychic trauma the heart is apt to be the source of many uncomfortable sensations. Moreover, in evaluating the histories of many of these patients, it is found that they have suffered from similar symptoms of more or less the same character and intensity off and on, more or less, for most of their lives. Exaggerated fears in childhood, frequent nightmares, enuresis often extending into adolescence, are indications of the neurotic-like pattern that many of these patients displayed in their early years, a pattern extending often into adult life when it is expressed in terms of diffuse fear and anxiety especially about physical health.

This leads to shopping from physician to physician with various diagnoses of organic heart disease to "nervous heart," the former being treated with digitalis and rest, the latter with sedation and a slap on the back and "go home and forget it." Most of such patients have been told that they were physically well and yet they continue to suffer from frightening symptoms, and since they receive no relief they become resentful and mistrustful of doctors, their pent-up anger and resentment bursting forth in periodic anxiety panics expressed as a fear of death. In many of them there is a history of poor sexual adjustment and of inadequate discharge for strong feelings of sexual excitement.

Once the defenses of these patients are broken down by some change of emotional import in their immediate environment, severe somatic symptoms are added to their overt neurotic manifestations, and they are apt to retreat into a life of chronic invalidism. Their cardiac symptoms help to rationalize their inner conflicts and fears, and offer them a reason for their sexual inadequacy. They are unconsciously afraid they will lose the approval of those about them, and their illness serves to gain them the attention they fear they may lose.

Therapy of a superficial character and directed along lines of utilizing an authoritarian, Jehovah-like approach, combined with explanation of symptoms and kindly, sympathetic reassurance, apparently result in sufficient improvement that symptomatic recovery occurs in 25 per cent to 30 per cent,[3] but since so many of these patients present phobic symptoms also, sometimes of a severe character, more intense psychotherapy for these is indicated.

D. *Coronary Occlusion and the Anginal Syndrome:*

The patients who suffer from angina and/or coronary occlusions are remarkably similar in personality structure.[6] They are individuals who drive themselves and endeavor to reach the top by hard work and effort. They lay out a plan for themselves and persistently stick to it until they have reached their goal. They show a marked sense of responsibility for their family and dependents, but, in spite of all this, impress one as suffering from an inner sense of loneliness. In constrast to the patients with neurocirculatory asthenia, seldom, if ever, do they display overt neurotic traits, and whatever feelings of frustration or depression they may have, they keep within themselves. They are apt to lead rather narrow, rigid lives, their compulsive drive to work leaving them little time for leisure or hobbies. An exposure to emotional shock, the loss of a loved one, or the necessity to relinquish any hard-earned success, may be the precipitating event before the first attack or the onset may be in the middle of the night following a disturbing dream. Such an onset is often preceded by a long period of overexertion, working long hours, with lack of sleep and overindulgence in tobacco and coffee, and lack of vacation and recreation.

In spite of illness, these people persist in fighting on, and, in order to do so, tend to minimize their symptoms; and if their activities should be severely curtailed, they are apt to react with severe depressive feelings. Even before their illness they harbor thoughts that they may not reach the pinnacle of success they have set for themselves, and if illness overtakes them before they reach their goal, a sense of depression overwhelms them.

In the treatment of such a patient, the first impulse is to correct the unhygienic habits in which he has indulged—the excessive use of coffee and tobacco, the too long hours of work without rest, recreation or vacation, the irregular eating habits and the tendency to work at top speed as if there were insufficient time left for him to accomplish his goals. But advice along such lines is often not enough, and the patient continues to do as he pleases despite the admonitions of his physician. If he does accept his advice, he does so with evident resentment and sometimes severe depression. If the time is taken to explain to the patient what lies behind his compulsive drive to hard work so that he understands himself better, the physician may be rewarded with greater cooperation and gradual decrease in tension. Such patients are generally quite intelligent and quick to appreciate the importance of emotional components in their illness. Another important aspect of therapy is to channel the patient's energies into some outlet which will afford him emotional satisfaction.

E. *Hypertension:*

Patients suffering from hypertension are generally described as displaying a superficial manner of self-control, but occasionally explosive anger and irritability burst through this.[2] They worry over their jobs, everything must be just right, and in this they display their compulsive drive to perfectionism which may be so intense as to interfere in the achievement of their goals. Their tendency to drive themselves with hard work resembles a similar attribute in patients with coronary disease and peptic ulcer. They like their food; eating affords them a sense of satisfaction, helps in relieving their tension and is one of the factors involved in the development of obesity which is so common among them. They dislike and resent criticism. However, they do not overtly express their anger, but tend to repress their feelings. Outwardly they act as though they want to please

people and gain their approval, and inwardly they may be "mad as hell." As a result they are in a psychological turmoil because of the conflict between their need for approval and their need to express the anger which they repress. They want to be well liked, but the occasional bouts of anger which break through their superficial armor often interfere with this. In general, they display few overt neurotic symptoms, although this may not be true of many of the patients that the internist refers to the psychiatrist. In these, the headaches, dizziness, precordial distress, feelings of faintness and fatigue are out of all proportion to the disease, and are manifestations of overt anxiety. A headache may be a symbolic expression of the individual's repressed rage—it is as if he were beating his head against the wall. Fatigue is more often the expression of emotional energy drained off to such a degree because of conflict that there is little left for motor activity. The whole gamut of symptoms displayed by the patient with neurocirculatory asthenia may appear in the hypertensive individual, and this is evidence of his underlying anxiety and indicates that his previous defenses have broken down.

There can be no doubt that psychological factors play a role in the production of hypertension, and we admit this when we allow for the emotional element every time we take a blood pressure reading. When we reassure a hypertensive patient and recommend isolation and rest for him, we do so in the hope of relieving stress and reducing his blood pressure. Not every individual with chronically repressed anger and rage develops hypertension, but at least the psychological factor should be considered as one of a multiplicity of elements which constitute the problem.

These patients need much in the way of reassurance and explanation. Their questions should be patiently heard and answered. In people with pent-up anger and resentment, one should think twice before advising absolute bed rest; some kind of light activity should be considered for them. One cannot rely on sedation alone to solve an individual's problems. The character of such a patient's occupation and his interpersonal relationships on the job may be important. He may be in a position where his hostility is frequently aroused and he has little opportunity to express it. A change of job may be indicated, but it is important that the patient have some appreciation of the fundamental reasons for this.

Where serious organic involvement is present, psychotherapy cannot reverse an irreversible process. Appropriate treatment may not lower the blood pressure in many cases, even in those where organic changes are not yet evident, but it may result in benefit to the patient by the alleviation of many presenting symptoms. In the treatment of such people, one attempts to gradually bring to the surface the sources of their hostility and to interpret this in terms of their present situation. At first they are afraid to give vent to their aggressive impulses, but when the physician is permissive and understanding about them, it helps to relieve their inner tension, and sometimes this reduction is measured on the sphygmomanometer. Our state of knowledge is such that psychotherapy may not be a panacea for the treatment of hypertension, and general medical, drug, and surgical therapy may be indicated, but none of these will relieve a patient of his psychological problems and neurotic conflicts. Not every patient is a suitable subject for psychotherapy—the less overtly neurotic he is, the better his adjustment prior to the development of his illness, the more easily he grasps possible relationships between his somatic difficulties and emotional problems, the better the prognosis with psychotherapy. When the patient tends to deny any and all emotional conflicts, the chances for successful treatment are minimal.

TREATMENT

Many emotional disturbances can be understood and handled if time is taken to learn a little more about an individual as a person, about the setting in which his symptoms occur and about the feelings and attitudes toward the people with whom he works and lives. They require some sensitivity on the part of the physician and appreciation of problems with which people cope. This does not necessarily imply unnecessary and awkward probing into sensitive areas, but the physician need not hesitate to inquire about the source of obvious anxiety. An attitude of kind, sympathetic understanding, devoid of moralistic censure, will assist in making this task easier for the patient.

When the doctor is faced with the problem of chronic invalidism, the therapeutic goal should be an acceptance by the patient of the realities of his disability, but he should be encouraged to utilize to the full his remaining capacities. Faced with a chronic illness, the patient may develop attitudes of depression, resentment, and loss of self-confidence, and these may become exaggerated as he finds his environment unwilling to assume full responsibility for him.[8] An appreciation of such emotional factors may help in a very material way in reducing the number of cardiac invalids so that patients avoid undue cardiac preoccupation and the multitude of neurotic symptoms which follow.

We must recognize that a patient's attitudes toward a doctor vary considerably—from blind child-like acceptance of the doctor as an omniscient God-like figure, to overt hostility and antagonism—and that such attitudes are primarily dependent on previous patterns and experiences in relation to people in authority. If we insist on a stereotyped authoritarian attitude of, "Since I tell you you have no heart disease, you have none," it may be successful with dependent submissive individuals, but it arouses irritation in others who would like an intelligent discussion and explanation of their symptoms and feelings.

We must appreciate and recognize not only the varying attitudes of our patients toward us and deal with them appropriately, but we must be cognizant of our own attitudes to patients. We unconsciously occasionally become hostile to patients, especially if

they "perniciously" persist in not improving under our therapy or deliberately disregard our sage advice.

When a patient presents himself with complaints referable to his heart, a complete and thorough physical examination should be followed by a definite and dogmatic statement in a self-assured manner of physical normality, if that is true. That in itself can be potent psychotherapy. The doctor must avoid expressions, verbal or by attitude, which will raise doubts in the patient's mind, or which will initiate the idea in him that his heart is abnormal.[1] An apparently innocent question or a frown may be enough to incite a storm of anxiety in the patient. The doctor who talks too much and too soon about murmurs and high blood pressure may cause more serious disease than a good many pathogenic organisms. An internist[3] has recently written: "Perhaps the physician should have a personal creed in respect to the handling of patients and particularly apprehensive ones. Such a creed might consist of something like the following.

"First, I shall avoid any thoughtless expression, deed or statement that might initiate in a healthy or relatively healthy patient the idea that the heart is abnormal; briefly, I shall not be a party to iatrogenic heart disease.

"Second, I shall not bring precise instrumental and laboratory methods, such as electrocardiography, into disrepute by consciously gainful or ignorant misinterpretation.

"Third, I shall discourage excessive dependence of any patient on a physician, but I shall give freely of time and try to think of satisfaction of the patient."

Reassurance may be a powerful weapon in combating anxiety, especially if it conveys the competence, honesty and interest of the doctor, but if anxiety persists in spite of reassurance, then a more incisive approach becomes necessary. The reassurance must be based on facts as the physician has learned them. It must consist of more than a slap on the back and a patronizing, "Forget it, don't worry, you'll be all right." That is not psychotherapy, that is "psychosyrupy." The statement, "Forget it, it's all in your imagination," can do more harm than an incorrect diagnosis. Some explanation of the meaning of physical symptoms that arise from states of fear, anxiety and tension, pays dividends. When reassurance fails, one is usually dealing with a more deep-seated neurosis, and if the physician reacts with irritation to his patient's failure to accept his pearls of wisdom, he is only doing so to allay his own sense of failure, and he thereby lessens his therapeutic usefulness to the patient.

The goal of therapy should be a solution of the immediate presenting problem. An effort should be made to assess the patient's assets and liabilities in psychological terms. One cannot remove every stress from the patient. Insight is important if the patient is to adjust, and it is important that insight develop from the patient himself. We must be alert to his implied needs for support and dependence and the expressions of his aggressions and hostilities, how these needs have been satisfied or thwarted, and how he has reacted to such situations. The physician cannot approach such a problem in a cold and ruthless fashion. The patient sets the tempo for the interview. As your examinations and studies are completed, and as the patient's appreciation of your interest in him mounts, his confidence in you increases further, discussion of physical symptoms naturally leads to the emotional and interpersonal setting in which they occurred, and, with an elaboration of this, one learns more of the inner meaning of his symptoms. A discussion of his interpersonal relationships in his own family, with friends, in work and in play, the sources of his irritations, the thwarting of unreached goals and unsatisfied desires, can tell us much about him as a person. One must learn to listen, and it is not necessary to lecture or deliver a sermon. Free emotional catharsis can be a useful procedure, but will only lead up a blind alley if the physician does not recognize the basic emotional needs and drives of the patient. Where insight does not develop, then changes in environment or in the attitudes of people about the patient may be indicated, but do not advise a vacation for your patient solely because you would like to have one yourself.

Above all, "The physician should remember that the illness is a dispute between the patient and his disease and that results will be discouraging unless equal attention is paid to both participants in this dispute."[6] And this involves the cooperative efforts of internist, surgeon and psychiatrist.

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